Amendments to the Specification:

Please replace paragraph [0030] with the following amended paragraph:

[0030] Figure 5 illustrates an exemplary electronics system 11 in which eight integrated circuits 14(1), 14(2), 14(3), 14(4), 14(4), 14(5), 14(6), 14(7), and 14(8) are electromagnetically coupled to transmission line 22. For example, the eight integrated circuits may be a microprocessor 14(1) and seven memory devices 14(2), 14(3), 14(4), 14(5), 14(6), [[and]] 14(7), and 14(8). The eight integrated circuits 14(1), 14(2), 14(3), 14(4), 14(4), 14(5), 14(6), 14(7), and 14(8) are mounted on a printed circuit board (not shown in Figure 5). Each of the electromagnetic couplers 18(1), 18(2), 18(3), 18(4), 18(4), 18(5), 18(6), 18(7), and 18(8) are electromagnetically coupled to transmission line 22. The system 11 may be partially or fully shielded. Exemplary shielding configurations are described more fully below.

Please replace paragraph [0039] with the following amended paragraph:

[0039] Many multiplexing, data exchange, and communication schemes and protocols are known in the electronics fields, and any such scheme or schemes or combination thereof may be used with the above described embodiment for transmitting data between integrated circuits. For example, known multiplexing schemes include, without limitation, time division multiplexing, frequency division multiplexing, and code division multiplexing. Exemplary, known protocols include, without limitation, Scalable Coherent Interface (SCI), Fire Wire, Ethernet, and Universal Serial Bus. Again, any such multiplexing scheme or protocol or combination thereof may be used with the instant invention.

Please replace paragraph [0044] with the following amended paragraph:

[0044] The Noise power Ni in milliwatts is given by the formula:

Ni = 1000 k Te B,

Where:

$k = 1.38 \times 10^{-23}$ Joules/Degree

(Boltzmann's constant)

Te = (F-1)To

<u>To = 370 K (100 degrees C)</u>

<u>F = Noise Figure of Receiver</u>

<u>B = Frequency bandwidth in Hz</u>

Please add the following paragraph immediately following paragraph [0044]:

<u>**[0045]** Therefore the available signal bandwidth for a given Signal to Noise Ratio (SNR) can be computed in dBm from:</u>

<u>Ni (dBm) = 10 Log [1000 k Te B]</u>

<u>Solving for B:</u>

<u>B = [10 ^ (Ni (dBm) /10)] / [1000 k Te]</u>

Please replace paragraph [0046] with the following amended paragraph:

<u>**[0046]** 0.3 bits / Hz is the approximate bandwidth required for a bipolar phase shift keying (BPSK) digital modulation scheme in a modest implementation.</u> <u>More complex modulation</u> schemes and circuitry are capable of yielding higher bits / Hz densities. Likewise, spread spectrum techniques can yield lower bit / Hz densities while yielding lower bit error rates at lower SNR ratios at the expense of additional system complexity.

Please replace paragraph [0064] with the following amended paragraph:

[0064] As shown in Figure 13, an integrated circuit 190 may be configured with a transmitting coupler 102 and a separate receiving coupler 98 adapted for communicating through an electromagnetically coupled ring or token ring bus. Integrated circuit 190 may also include a logic circuit 93 communicating via an input/output interface 94. A receiver 96 demodulates an RF signal arriving on electromagnetic coupler 98 to produce an input signal 95 to input/output (I/O) interface 94. Typically, the input signal 95 conveys data transmitted by another element that is electromagnetically coupled to the ring bus. If the data is addressed to integrated circuit 90, input/output interface 94 passes the data to logic circuit 93. Otherwise input/output interface 94 encodes the data into an output signal 97 and passes it to transmitter 100. Transmitter 100 supplies an RF signal modulated by the output signal 97 to an electromagnetic coupler 102.

Please replace paragraph [0068] with the following amended paragraph:

[0068] Figures 15-16 illustrate an exemplary embodiment of the invention in which integrated circuits contactlessly communicate directly with each other. As shown in Figure 15 (a cross-sectional side view), a plurality (in this example three) of integrated circuits 112(1), 112(2), and 112(3) are vertically stacked. For example integrated circuit 112(3) might include a computer processor and integrated circuits 112(1) and ~~112(3)~~ 112(2) might implement memories the processor accesses. Each integrated circuit 112(1), 112(2), and 112(3) includes a substrate 116 in which is formed circuitry. For example, the circuitry might include a logic circuit, an input/output interface, and a transceiver or transceivers configured in an arrangement similar to that of integrated circuit 14 of Figure 4, integrated circuit 60 of Figure 8, or integrated circuit 190 of Figure 13. The transceiver in each integrated circuit 112(1), 112(2), and 112(3) is connected to a corresponding electromagnetic coupler 118(1), 118(2), and 118(3), which is preferably formed on or within substrate 116. Electromagnetic couplers 118(1), 118(2), and 118(3) are located in proximity with each other so as to be electromagnetically coupled with one another. In this manner, integrated circuits 112(1), 112(2), and 112(3) communicate with each other contactlessly through the silicon without requiring vias or conductive vertical elements to interconnect the stacked dice.

Please replace paragraph [0069] with the following amended paragraph:

[0069] Integrated circuits 112(1)-112(3) can be disposed such that each electromagnetic coupler 118(1), 118(2), and 118(3) is electromagnetically coupled to all of the other electromagnetic couplers. Alternatively, the couplers 118(1), 118(2), and 118(3) of integrated circuits 112(1), 112(2), and 112(3) may be tuned and "tightly" coupled to act as ~~resonate~~ resonant transformers to pass RF signals vertically in either direction between electromagnetic coupler 118(1) and 118(3) of integrated circuits 112(1), 112(2), and 112(3) without minimum attenuation. In such arrangements, a transmission by one integrated circuit (e.g., 118(1)) would be received and decoded by all of the other integrated circuits. Only the integrated circuit to which the transmission was addressed, however, would keep and process the data in the transmission.